

AD _____

Award Number: DAMD17-99-1-9478

TITLE: COMMITTEE ON MILITARY NUTRITION RESEARCH

PRINCIPAL INVESTIGATOR: Maria Oria, Ph.D.

CONTRACTING ORGANIZATION: National Academy of Sciences
Washington DC 20418

REPORT DATE: January 2007

TYPE OF REPORT: Final

PREPARED FOR: U.S. Army Medical Research and Materiel Command
Fort Detrick, Maryland 21702-5012

DISTRIBUTION STATEMENT: Approved for Public Release;
Distribution Unlimited

The views, opinions and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy or decision unless so designated by other documentation.

REPORT DOCUMENTATION PAGE				Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.					
1. REPORT DATE (DD-MM-YYYY) 01-01-2007		2. REPORT TYPE Annual		3. DATES COVERED (From - To) 01 Jun 99 – 31 Dec 06	
4. TITLE AND SUBTITLE COMMITTEE ON MILITARY NUTRITION RESEARCH				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER DAMD17-99-1-9478	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) Maria Oria, Ph.D. E-Mail: MOria@nas.edu				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) National Academy of Sciences Washington DC 20418				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Medical Research and Materiel Command Fort Detrick, Maryland 21702-5012				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION / AVAILABILITY STATEMENT Approved for Public Release; Distribution Unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT: This report presents the activities of the National Academy of Sciences/Institute of Medicine's Committee on Military Nutrition Research (CMNR) for the period January 1, 2006 to December 31, 2006. Activities during this time period which are described in detail in this report include meetings of the CMNR, meetings of other committees working under the auspices of CMNR and reports published by those committees. During the period covered by this report, there was one publication: Mineral Requirements by Military Personnel.					
15. SUBJECT TERMS Nutrition					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			USAMRMC
U	U	U	UU	10	19b. TELEPHONE NUMBER (include area code)

Table of Contents

SF 298.....	2
Foreword.....	4
Introduction.....	4
Activities of the Committees.....	6
Appendices.....	6

Committee on Military Nutrition Research

Award Number DAMD17-99-1-9478

Annual Report for Period January 1, 2006 to December 31, 2006

FOREWARD

The purpose of this project is to continue the activities of the Institute of Medicine's Food and Nutrition Board Standing Committee on Military Nutrition Research (CMNR). The purpose of the CMNR is to provide review and recommendations to the Commander, U.S. Army Medical Research and Materiel Command (USAMRMC), on research projects, programs, and products as they relate to the nutrition and performance of military personnel. This multidisciplinary standing committee is made up of experts in nutrition, food science, pharmacology, physiology, and behavior, and with knowledge of military procedures. The committee meets at least once per year and oversees the activity of subcommittees that have the necessary in-depth expertise to address each specific task requested by the military. This report covers the activities of the CMNR and its various and committees for the period January 1, 2006 to December 31 2006.

INTRODUCTION

The CMNR was established in October 1982 following a request by the Assistant Surgeon General of the Army that the Board on Military Supplies of the National Academy of Sciences set up a special committee to advise the U.S. Department of Defense on the need for and conduct of nutrition research and related issues. This newly formed committee was transferred to the oversight of FNB in 1983. The committee's primary tasks are to identify nutritional factors that may critically influence the physical and mental performance of military personnel under all environmental extremes, to identify knowledge gaps, to recommend research that would remedy these deficiencies as well as approaches for studying the relationship of diet to physical and mental performance, and to review and advise on military feeding standards.

As a standing committee of IOM, the membership of CMNR changes periodically (see Appendix A), however the disciplines represented consistently have included human nutrition, nutritional biochemistry, performance physiology, food science, dietetics, psychology, and clinical medicine. For issues that require broader expertise than exists within the committee, CMNR has convened workshops, utilized consultants, or appointed committees with expertise in the desired area to provide additional state-of-the art scientific knowledge and informed opinion to aid in the deliberations.

ACTIVITIES OF THE COMMITTEES

Standing Committee on Military Nutrition Research

The standing committee met on June 20, 2006 to discuss the statement of task for a new potential project on dietary supplement use by military personnel (see Agenda in Appendix B). The committee met in closed session which was followed by a planning meeting with potential sponsors of this project. Representatives from the U.S. Army Institute of Environmental Medicine, the Samueli Institute, and the National Institutes of Health's Office of Dietary Supplements attended the planning meeting.

Committee on Mineral Requirements for Military Personnel

From February of 2004, this specially appointed committee of the CMNR conducted a study on Mineral Requirements for Military Personnel (see membership in Appendix A). As a result of the study a report was produced and delivered to the Department of Defense. During the first weeks of January and February the report was reviewed by external reviewers, following National Research Council procedures. The report *Mineral Requirements for Military Personnel* was finalized and produced by mid March and released on March 20. Representatives from the Department of Defense received a briefing of the report by the chair of the committee, Dr. Robert Russell, and IOM responsible program officer, Dr. Maria Oria, on March 20, 2007.

Committee on Dietary Supplement Use by Military Personnel

This expert committee was established in October of 2006 (see membership in Appendix A). The committee was appointed to analyze the patterns of dietary supplement use among military personnel, and by examining published reviews of the scientific evidence, the committee will identify those patterns that are beneficial and/or warrant concern due to risks to health or performance. The committee was also charged with developing a system to monitor adverse health effects, and recommend a framework to identify the need for actively managing dietary supplement use by military personnel. During the remainder of the year 2006 (October-December), the committee planned and organized the 2-day Workshop on Dietary Supplement Use by Military Personnel which took place in February 2007. In addition, discussions regarding the approach of the committee to answer the specific questions in the statement of task took place throughout the remainder of the year by email and conference calls.

APPENDIX A

Committee Rosters

COMMITTEE ON MILITARY NUTRITION RESEARCH

John W. Erdman, Ph.D. (Chair)

Nutrition Research Endowed Chair
Professor of Internal Medicine
Department of Food Science and Human
Nutrition
University of Illinois at Urbana-Champaign
Urbana, IL

Eldon Wayne Askew, Ph.D.

Professor and Director
University of Utah
Division of Nutrition
Salt Lake City, UT

Bruce R. Bistrian, M.D., Ph.D.

Professor of Medicine
Harvard Medical School
Boston, MA

Joseph G. Cannon, Ph.D.

Kellett Chair of Allied Health Sciences
Medical College of Georgia
Augusta, GA

Johanna Dwyer, D.Sc., R.D.

Director, Frances Stern Nutrition Center
Tufts University
New England Medical Center
Boston, MA

William C. Franke, Ph.D.

Associate Director
Center for Advanced Food Technology
Rutgers, The State University of New Jersey
New Brunswick, NJ

Ronald Glaser, Ph.D.

Professor, Molecular Virology,
Immunology,
and Medical Genetics
The Ohio State University College of
Medicine
Columbus, OH

Robin B. Kanarek, Ph.D.

Professor and Chair of Psychology
Professor of Nutrition
Tufts University
Medford, MA

Esther F. Myers, Ph.D.

Research and Scientific Affairs
American Dietetic Association
Chicago, IL

Staff

Maria Oria, Ph.D.

Study Director
Phone: 202-334-2321
Email: moria@nas.edu

Shannon Wisham, B.A.

Research Associate
Phone: 202-334-1947
Email: swisham@nas.edu

Sandra Amamoo-Kakra, B.A.

Senior Program Assistant
Phone: 202-334-1326
Email: samamook@nas.edu

COMMITTEE ON MINERAL REQUIREMENTS FOR COGNITIVE AND PHYSICAL PERFORMANCE OF MILITARY PERSONNEL

Robert M. Russell, M.D. (Chair)

Jean Mayer USDA Human Nutrition Research
Center on Aging
Tufts University
Boston, MA

Emily Haymes, Ph.D.

C. Etta Walters Professor of Exercise Science
Tallahassee, Florida

Janet R. Hunt, Ph.D., R.D.

Research Nutritionist and Scientist
Grand Forks Nutrition Research Center
Agricultural Research Service
Grand Forks, ND

Susan S. Percival, Ph.D.

Professor
Dept of Food Science and Human Nutrition
University of Florida
Gainesville, FL

John L. Beard, Ph.D.

Professor of Nutrition
Pennsylvania State University
University Park

Connie M. Weaver, Ph.D.

Head
Department of Food Science and Nutrition
Purdue University
West Lafayette, IN

Gerald F. Combs, Jr., Ph.D.

Director
Grand Forks Human Nutrition Research Grand
Forks, ND

John W. Erdman, Jr. Ph.D.

University of Illinois at Urbana-Champaign
Department of Food Science and Human
Nutrition
Urbana, IL

Joseph G. Cannon, Ph.D.

Professor
Medical College of Georgia
Augusta, Georgia

Melinda Beck, Ph.D.

Professor
University of North Carolina at Chapel Hill
Chapel Hill, NC

Bruce R. Bistrian, M.D., Ph.D.

Chief, Clinical Nutrition
Beth Israel Deaconess Medical Center
Boston, MA

Johanna Dwyer, D.Sc., R.D.

Professor of Medicine (Nutrition) &
Community Health
Tufts-New England Medical Center
Boston, MA

Helen W. Lane, Ph.D., R.D.

Chief Nutritionist
NASA Johnson Space Center
Houston, TX

James G. Penland, Ph.D.

Research Psychologist
Agricultural Research Service
Grand Forks, ND

Staff:

Maria Oria, Ph.D.

Project Director
moria@nas.edu

Leslie J. Vogelsang, B.S.

Research Associate
lvogelsang@nas.edu

Jon Q. Sanders, B.A.

Senior Program Assistant
jsanders@nas.edu

COMMITTEE ON DIETARY SUPPLEMENT USE BY MILITARY PERSONNEL

M.R.C. Greenwood, Ph.D. (Chair)

Professor of Nutrition and Internal Medicine
University of California, Davis
Davis, CA

Cheryl Anderson, Ph.D.

Assistant Scientist
Department of Epidemiology
Johns Hopkins University
Baltimore, MD

Bruce R. Bistrian, M.D., Ph.D.

Professor of Medicine
Harvard Medical School
Boston, MA

John W. Erdman, Ph.D.

Nutrition Research Endowed Chair
Professor of Internal Medicine
Dept of Food Science and Human
Nutrition
University of Illinois at Urbana-Champaign
Urbana, IL

William C. Franke, Ph.D.

Associate Director
Center for Advanced Food Technology
Rutgers, The State University of New Jersey
New Brunswick, NJ

Elizabeth Jeffery, Ph.D.

Professor
Department of Food Science and Nutrition
University of Illinois
Urbana, IL

Robin B. Kanarek, Ph.D.

Professor and Chair of Psychology
Professor of Nutrition
Tufts University
Medford, MA

Carl L. Keen, Ph.D.

Professor and Chair
Department of Nutrition
University of California, Davis

Gail B. Mahady, Ph.D.

Assistant Professor
Pharmacy Practice
UIC/NIH Center for Botanical Dietary
Supplements Research for Women's Health
Chicago, IL

Sanford A. Miller, PhD

Senior Fellow
Center for Food, Nutrition, and Agriculture
Policy
Affiliated Professor Nutrition and Food
Science
University of Maryland, College Park
College Park, MD

Esther F. Myers, Ph.D.

Research and Scientific Affairs
American Dietetic Association
Chicago, IL

Janet Walberg Rankin, Ph.D.

Professor
Department of Human Nutrition and Foods
and Exercise
Virginia Polytechnic Institute and State
University
Blacksburg, VA

Staff

Maria Oria, Ph.D.

Study Director
Phone: 202-334-2321
Email: moria@nas.edu

Shannon Wisham, B.A.

Research Associate
Phone: 202-334-1947
Email: swisham@nas.edu

Sandra Amamoo-Kakra, B.A.

Senior Program Assistant
Phone: 202-334-1326
Email: samamook@nas.edu

APPENDIX B

Committee on Military Nutrition Research June 20, 2006

Agenda

8:00 am Breakfast in Cafeteria

CLOSED SESSION

8:20 am Discussion about Use of Dietary Supplement by Military Personnel
John Erdman, CMNR Committee Chair

OPEN SESSION

9:30 am Welcome and Introductions
John Erdman

9:40 The National Academies Process
FNB Staff

10:00 Break

10:45 Importance of Dietary Supplements Use by Military Personnel
The Samueli Institute
USARIEM
NIH

11:30 The Task: Dietary Supplement Use by Military Personnel
Andy Young, Chief, Military Nutrition Division

11:45 Survey Data on Supplement Use for the Committee's Use
Andy Young

12:00 Lunch in Cafeteria

1:00 Questions about the Current Task
John Erdman

2:00 Proposed Plan of Work
Maria Oria, Senior Program Officer, FNB

2:30 Future Work of the CMNR and ad hoc Committees

3:00 Adjourn